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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/456,676	12/09/1999	TEJASWI VISHWAMITRA	NTI/203	6760
23409	7590	05/18/2005	EXAMINER	
MICHAEL BEST & FRIEDRICH, LLP 100 E WISCONSIN AVENUE MILWAUKEE, WI 53202			MEI, XU	
			ART UNIT	PAPER NUMBER
			2644	

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/456,676

Applicant(s)

VISHWAMITRA, TEJASWI

Examiner

Xu Mei

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 25 is/are rejected.
- 7) ☐ Claim(s) 11-24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/23/2000 (#2)</u> . | 6) <input type="checkbox"/> Other: _____ |

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1. This communication is responsive to the applicant's amendment dated 11/8/2004.

Election/Restrictions

2. Upon further review of the application, the examiner reconsidered the election/restriction requirement in the previous office action. The dual voice coil audio drive in claims 5, 12 and 18 is an integral part of the first driver for generating both left and right channel audio signals as recited in independent claims 1, 11 and 17. It is therefore deemed the previous election/restriction requirement is not appropriate and is vacated in this office action. Applicant is requested to reinstate the withdrawn claims (5-6, 12-13, 18-19) with amendment to the claims in response to this office action.

All claims are considered in this office action.

Claim Objections

3. Claims 1-10 are objected to because of the following informalities: in claim 1, line 3, "sound in response r to..." is recited. This appears to be a typo in the claim. Appropriate correction is required.

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4. Claims 11-16 are objected to because of the following informalities: in claim 11, line 3, "sound in response S to..."; in line 7, "second audio 10 driver..." are recited. This appears to be typos in the claim. Appropriate correction is required.

5. Claims 17-23 are objected to because of the following informalities: in claim 17, line 3, "said 5 right..." is recited. This appears to be a typo in the claim. Appropriate correction is required.

6. Claim 24 is objected to because of the following informalities: in line 3, "tweeter 5 coupled..." is recited. This appears to be a typo in the claim. Appropriate correction is required.

7. Claim 25 is objected to because of the following informalities: in line 3, "audio 5 drivers..." is recited. This appears to be a typo in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. Claims 1-~~10~~ are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitations "said left and right channel audio inputs" in lines 7-8 and lines 11-12; "said first channel audio signal input" in line 8. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuda (US-3944941) in view of Campbell (US-5875255)

Regarding claim 25, Tsuda discloses a method for producing sound in at least one of right and left channel signals (11a,

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12a) generated by an audio sources, comprising: mounting a first audio driver and a second audio driver (speakers 13 and 14); coupling a switch device in circuit 17 with the first and second audio drivers; configuring the first driver to receive at least one of the right and left channel audio signals; and configuring the second audio driver to receiver one or the other of the right and left channel audio signals through actuation of the switch device. What does Tsuda not teach is the second audio driver is a pair of audio drivers. However, a single speaker housing including a pair of similar drivers for generating desired frequency audio output is old and well known in the art, and Campbell discloses such well known speaker enclosure including a pair of similar output drivers (i.e., tweeters 11). It would have been obvious to one of ordinary skill in the art to utilizing the switching audio driving circuit of Tsuda for driving the different audio drivers, such as a pair of drivers as shown Campbell, in order to generate desired audio output signals with enhanced frequency response as shown by Campbell.

11. Claims 1-24 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, and claims objection as set forth in this Office action.

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12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Takagi et al, Watanabe, Holl, Hipps et al, Broadie, Yumoto, Ruzicka, Daniels et al, Suzuki et al, and Kuusama et al are made of record here as pertinent art to the claimed invention. The cited references disclose various audio signal processing systems and speakers including switching means.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xu Mei whose telephone number is 571-272-7523. The examiner can normally be reached on Monday-Friday (9:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Xu Mei
Primary Examiner
Art Unit 2644
05/09/2005